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NOTICE OF ALLOWANCE AND FEE(S) DUE

22801

7590

12/06/2010

LEE & HAYES, PLLC 601 W. RIVERSIDE AVENUE SUITE 1400 SPOKANE, WA 99201 EXAMINER

QUELER, ADAM M

ART UNIT PAPER NUMBER

2178

DATE MAILED: 12/06/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,735	12/08/2003	Sohail Baig Mohammed	MS1-1724US	3970

TITLE OF INVENTION: MEDIA PROCESSING METHODS, SYSTEMS AND APPLICATION PROGRAM INTERFACES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/07/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

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10/730,735	12/08/2003	Sohail Baig Mohammed	MS1-1724US	3970
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LEE & HAYES, PLLC			QUELER, ADAM M	
601 W. RIVERSIDE AVENUE SUITE 1400			ART UNIT	PAPER NUMBER
			2178	
SPOKANE, WA 99201			DATE MAIL ED. 10/06/2010	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1459 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1459 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

	Application No.	Applicant(s)			
	10/730,735	MOHAMMED ET AL.			
Notice of Allowability	Examiner	Art Unit			
	ADAMM OHELED	2179			
	ADAM M. QUELER	2178			
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED i or other appropriate comm IGHTS. This application is	n this application. If not included unication will be mailed in due course. THIS			
1. X This communication is responsive to <u>Amendment filed 08/2</u>	<u>24/2010</u> .				
2. \boxtimes The allowed claim(s) is/are $\underline{2,4-7,9-13,15-47,49-71,73-75}$	and 77-89.				
 3. ☐ Acknowledgment is made of a claim for foreign priority ur a) ☐ All b) ☐ Some* c) ☐ None of the: 1. ☐ Certified copies of the priority documents have 2. ☐ Certified copies of the priority documents have 	e been received.				
3. Copies of the certified copies of the priority documents have been received in this national stage application from the					
International Bureau (PCT Rule 17.2(a)).	International Bureau (PCT Rule 17.2(a)).				
* Certified copies not received:					
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.					
4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give					
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.					
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached					
1) hereto or 2) to Paper No./Mail Date					
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date					
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t					
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.					
Attachment(s) 1. ☐ Notice of References Cited (PTO-892)	5. ☐ Notice of Ir	oformal Patent Application			
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)		ummary (PTO-413),			
	Paper No.	/Mail Date			
3. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date <u>See Continuation Sheet</u>	/. ⊠ Examiner's	Amendment/Comment			
4. Examiner's Comment Regarding Requirement for Deposit	8. 🛛 Examiner's	Statement of Reasons for Allowance			
of Biological Material	9. 🔲 Other				
/Adam M Queler/					
Primary Examiner, Art Unit 2178					

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 08/24/10 5/14/04 12/8/03...

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EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR
 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert Peck on 11/18/2010.

The application has been amended as follows: 1. (Canceled)

2. (Currently Amended) The system of claim [[1]] 77, wherein the media engine exposes an application program interface that is used by [[an]] the application to interact directly with the media engine, and indirectly with components used by the media engine.

3. (Canceled)

- **4.** (Currently Amended) The system of claim [[1]] <u>77</u>, wherein the media engine is configured to provide support for both linear and non-linear media sources.
- **5.** (Currently Amended) The system of claim [[1]] <u>77</u>, wherein the media engine is configured to provide transport control for the media content.
- **6.** (Currently Amended) The system of claim [[1]] <u>77</u>, wherein the media engine is configured to provide for asynchronous building and management of a media pipeline given a source of media content.
- 7. (Currently Amended) The system of claim [[1]] 77, wherein the media engine is configured to provide source resolution for the media content.

8. (Canceled)

- **9.** (Currently Amended) The system of claim [[1]] <u>77</u>, wherein the media engine is configured to enable adjustment of a media processing pipeline configuration.
- **10.** (Currently Amended) The system of claim [[1]] <u>77</u>, wherein the media engine is configured to support multiple different modes of stream selection.

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11. (Original) The system of claim 10, wherein one mode comprises a mode in which the media engine selects which media streams are used.

- **12.** (Original) The system of claim 10, wherein one mode comprises a mode in which the application selects which media streams are used.
- 13. (Original) The system of claim 10, wherein one mode comprises a mode in which the media engine selects which media streams are used, and another mode comprises a mode in which the application selects which media streams are used.

14. (Canceled)

15. (Currently Amended) A system comprising:

first and second computing devices; and

a media engine distributed among and implemented in the first and second computing devices and configured to communicatively interact with an application of the second computing device to present a presentation on the second first computing device, the first and second computing devices being remote from each other,

the media engine being configured to a provide plurality of open methods that can be called by [[an]] the application to specify data sources in different manners,

the media engine implemented in the first computing device being configured to:

use one or more media sources individual ones of which serving as a source of media content; and

first partially resolve a topology that is to be utilized to present the presentation, and then cause a full topology to be resolved and activated,

distribute the full topology to the second computing device, and

the media engine implemented in the second computing device being configured to use:

one or more transforms linked to the full topology, communicatively linked with one or

one or more transforms linked to the full topology, communicatively linked with one or more media sources, and configured to operate on data received from the one or more media sources; and

one or more media sinks configured to sink a media stream.

the media engine being configured to use:

one or more media sources individual ones of which serving as a source of media content;

one or more transforms communicatively linked with one or more media sources and configured to operate on data received from the one or more media sources; and one or more media sinks configured to sink a media stream.

- **16. (Original)** The system of claim 15, wherein the media engine is configured to send events associated with a media presentation to [[an]] the application.
- **17.** (Original) The system of claim 15, wherein one of the open methods specifies a URL as a data source.

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18. (Original) The system of claim 15, wherein one of the open methods specifies a media source created by the application.

- 19. (Original) The system of claim 15, wherein one of the open methods specifies an object that has an interface from which a media source object can be obtained.
- **20.** (Original) The system of claim 15, wherein one of the open methods specifies an object from which a byte stream can be obtained.
- **21.** (Original) The system of claim 15, wherein one of the open methods specifies a topology to be used.
- **22.** (Original) The system of claim 15, wherein the open methods are selected from a group of open methods that:

specify a URL as a data source,

specify a media source created by the application,

specify an object that has an interface from which a media source object can be obtained,

specify an object from which a byte stream can be obtained, and

specify a topology to be used.

- **23.** (Original) The system of claim 15, wherein the media engine is configured to provide methods to start a presentation, stop a presentation, and pause a presentation.
- **24.** (Original) The system of claim 23, wherein the media engine is configured to generate and send an event to an application associated with each of said start, stop and pause methods.
- **25.** (Original) The system of claim 15, wherein the media engine further comprises a plurality of information methods that can be used by the application to obtain information that pertains to the presentation.
- **26.** (Original) The system of claim 25, wherein one of the information methods enables the application to be exposed to multiple capabilities of the media engine.
- **27.** (Original) The system of claim 25, wherein one of the information methods enables the application to ascertain when the system's capabilities change.
- **28.** (Original) The system of claim 25, wherein one of the information methods enables the application to obtain metadata associated with the presentation.
- **29.** (Original) The system of claim 25, wherein one of the information methods enables the application to obtain metadata associated with the presentation, the metadata being obtained in the form of a property store that can be queried for the metadata.

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30. (Original) The system of claim 25, wherein one of the information methods enables the application to ascertain a current destination.

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- **31.** (Original) The system of claim 25, wherein one of the information methods enables the application to ascertain statistics associated with the media engine.
- **32.** (Original) The system of claim 25, wherein one of the information methods enables the application to ascertain a current state of the media engine.
- **33.** (Original) The system of claim 25, wherein one of the information methods enables the application to retrieve a clock according to which the media engine is presenting.
- **34.** (Original) The system of claim 25, wherein the information methods are selected from a group of information methods comprising methods that enable the application to: (1) be exposed to multiple capabilities of the media engine; (2) obtain metadata associated with the presentation; (3) ascertain a current destination; (4) ascertain statistics associated with the media engine; (5) ascertain a current state of the media engine; and (6) retrieve a clock according to which the media engine is presenting.
- **35.** (Original) The system of claim 15, wherein the media engine is configured to generate a plurality of events associated with the presentation, the media engine being configured to send the events to the application.
- **36.** (Original) The system of claim 35, wherein one event is associated with a new presentation that is to be presented.
- **37.** (Original) The system of claim 35, wherein one event is associated with a completion of an open method.
- **38.** (Original) The system of claim 35, wherein one event is associated with completion of an operation begun by calling a start method on the media engine.
- **39.** (Original) The system of claim 35, wherein one event is associated with completion of an operation begun by calling a stop method on the media engine.
- **40. (Original)** The system of claim 35, wherein one event is associated with completion of an operation begun by calling a pause method on the media engine.
- **41. (Original)** The system of claim 35, wherein one event is associated with rendering of a last data sample from an active media source.
- **42. (Original)** The system of claim 35, wherein one event is associated with completion of an operation begun by calling a close method on the media engine.

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43. (Original) The system of claim 35, wherein one event is associated with a switch between presentations.

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- **44. (Original)** The system of claim 35, wherein one event is associated with a presentation destination change.
- **45. (Original)** The system of claim 35, wherein one event is associated with a state change on the media engine.
- **46. (Original)** The system of claim 35, wherein one event is associated with a change in a set of allowed operations on the media engine.
- **47. (Original)** The system of claim 35, wherein one event is associated with a media rate change.

48. (Canceled)

49. (Currently Amended) A system comprising:

first and second computing devices; and

a media engine distributed among and implemented in the first and second computing devices and configured to communicatively interact with an application of the second computing device to present a presentation, the media engine being configured to use a media session, the media engine and the media session configured to present the presentation on the second first computing device, the first and second computing devices being remote from each other, the media engine implemented in the first computing device being configured to:

use one or more media sources individual ones of which serving as a source of media content; and

first partially resolve a topology that is to be utilized to present the presentation, and then cause a full topology to be resolved and activated,

distribute the full topology to the second computing device, and

the media engine implemented in the second computing device being configured to use:

one or more transforms linked to the full topology, communicatively linked with one or
more media sources, and configured to operate on data received from the one or more
media sources; and

one or more media sinks configured to sink a media stream.

the media session being configured to use:

one or more media sources individual ones of which serving as a source of media content;

one or more transforms communicatively linked with one or more media sources and configured to operate on data received from the one or more media sources; and one or more media sinks configured to sink a media stream.

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50. (Currently Amended) The system of claim 49, wherein the media engine exposes application program interfaces that are used by [[an]] the application to interact directly with the media engine, and indirectly with components used by the media engine.

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- **51. (Original)** The system of claim 49 further comprising a destination associated with the media engine and configured to provide one or more media sinks.
- **52.** (Original) The system of claim 49, wherein at least some components used by the media session are not visible to the application or media engine.
- **53.** (Original) The system of claim 49, wherein the media session is configured to: receive information from the media engine, said information being associated with (a) media content that is to be the subject of a presentation, and (b) a destination that is configured to provide one or more media sinks, and cause the media content to be presented.
- **54.** (Original) The system of claim 49, wherein the media session is configured to manage data flow from said one or more media sources to said one or more media sinks.
- **55.** (Original) The system of claim 49, wherein the media session exposes one or more methods that enable the media engine to configure the media session for a presentation.
- **56.** (Original) The system of claim 49, wherein the media session exposes one or more methods that enable the media engine to configure the media session for a presentation, wherein one method comprises a method through which a topology on the media session is initialized.
- **57.** (Original) The system of claim 49, wherein the media session exposes one or more methods that enable the media engine to configure the media session for a presentation, wherein one method comprises a method through which one or more components can subscribe to receive notifications from a clock that is used to control the presentation.
- **58.** (Original) The system of claim 49, wherein the media session provides methods for starting, stopping and pausing a presentation.
- **59.** (Original) The system of claim 49, wherein the media session provides a preroll method that is used by the media engine to notify the media session to prepare for the start of a presentation.
- **60.** (Original) The system of claim 49, wherein the media session further comprises a plurality of information methods that can be used by the media engine to obtain information from the media session.
- **61. (Original)** The system of claim 49, wherein the media session further comprises a plurality of information methods that can be used by the media engine to obtain information from the

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media session, wherein one information method enables the media engine to ascertain a globally unique identifier that is associated with a particular implementation of a media session.

- **62. (Original)** The system of claim 49, wherein the media session further comprises a plurality of information methods that can be used by the media engine to obtain information from the media session, wherein one information method enables the media engine to ascertain capabilities associated with the media session.
- **63. (Original)** The system of claim 49, wherein the media session is further configured to generate a plurality of events associated with the presentation, the media session being configured to send the events to the media engine.
- **64. (Original)** The system of claim 49, wherein the media session is further configured to generate a plurality of events associated with the presentation, the media session being configured to send the events to the media engine, wherein the media engine is configured to forward at least some of the events generated by the media session to the application.
- **65. (Original)** The system of claim 49, wherein the media session is further configured to generate a plurality of events associated with the presentation, the media session being configured to send the events to the media engine, wherein one event comprises a session started event that is generated when a session is started.
- **66. (Original)** The system of claim 49, wherein the media session is further configured to generate a plurality of events associated with the presentation, the media session being configured to send the events to the media engine, wherein one event comprises a session stopped event that is generated when a session is stopped.
- **67. (Original)** The system of claim 49, wherein the media session is further configured to generate a plurality of events associated with the presentation, the media session being configured to send the events to the media engine, wherein one event comprises a session ended event that is generated with a session is ended.
- **68. (Original)** The system of claim 49, wherein the media session is further configured to generate a plurality of events associated with the presentation, the media session being configured to send the events to the media engine, wherein one event comprises a session paused event that is generated when a session is paused.
- **69. (Original)** The system of claim 49, wherein the media session is further configured to generate a plurality of events associated with the presentation, the media session being configured to send the events to the media engine, wherein one event comprises a rate change event that is generated when a media rate is changed.

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70. (Original) The system of claim 49, wherein the media session is further configured to generate a plurality of events associated with the presentation, wherein the events are selected from a group of events comprising: (1) a session started event that is generated when a session is started; (2) a session stopped event that is generated when a session is stopped; (3) a session ended event that is generated with a session is ended; (4) a session paused event that is generated when a session is paused; (5) a rate change event that is generated when a media rate is changed.

71. (Original) The system of claim 49 further comprising a media processor used by the media session and using at least one of said media sources and at least one transform.

72. (Canceled)

73. (Currently Amended) A system comprising:

first and second computing devices; and

a media engine distributed among and implemented in the first and second computing devices and configured to communicatively interact with an application of the second computing device to present a presentation, the media engine being configured to use a media session, the media engine and the media session configured to present the presentation on the second first computing device, the first and second computing devices being remote from each other, the media session being configured to use at least one media processor, one or more bit pumps communicatively linked with the media processor, and one or more media sinks communicatively linked with respective bit pumps,

the media processor being configured to use one or more media sources and one or more transforms communicatively linked with one or more media sources and configured to operate on data received from the one or more media sources.

the media engine implemented in the first computing device being configured to:

use the one or more media sources, individual ones of which serving as a source of media content; and

first partially resolve a topology that is to be utilized to present the presentation, and then cause a full topology to be resolved and activated,

distribute the full topology to the second computing device, and

the media engine implemented in the second computing device being configured to use:

the one or more transforms, which are linked to the full topology, communicatively linked with one or more media sources, and configured to operate on data received from the one or more media sources; and

the one or more media sinks, which are configured to sink a media stream.

- **74.** (Original) The system of claim 73, wherein the one or more bit pumps are configured to pull data from the media processor.
- **75.** (Original) The system of claim 73, wherein the one or more bit pumps are configured to pull data from the media processor and to push pulled data to one or more media sinks.

76. (Canceled)

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77. (Currently Amended) A system comprising:

first and second computing devices; and

a media engine distributed among and implemented in the first and second computing devices and configured to communicatively interact with an application of the second computing device to present a presentation on the second first-computing device, the first and second computing devices being remote from each other,

the media engine implemented in the first computing device being configured to:

use one or more media sources individual ones of which serving as a source of media content; and

first partially resolve a topology that is to be utilized to present the presentation, and then cause a full topology to be resolved and activated,

distribute the full topology to the second computing device, and

the media engine implemented in the second computing device being configured to use:
one or more transforms <u>linked to the full topology</u>, communicatively linked with one or
more media sources, and configured to operate on data received from the one or more
media sources; and

one or more media sinks configured to sink a media stream.

- **78.** (Original) The system of claim 77, wherein the media engine is configured to set up a media session which uses said one or more media sources, said one or more transforms, and said one or more media sinks, said media session being configured to fully resolve a partial topology that has been resolved by said media engine.
- **79.** (Original) The system of claim 78, wherein the media session is configured to fully resolve said partial topology by at least ascertaining transforms that are to be placed between the media sources and the media sinks.
- **80.** (Original) The system of claim 78, wherein the media engine is configured to receive calls from the application and forward the calls to the media session, said calls comprising calls to start, stop and pause the presentation.
- **81.** (Original) The system of claim 78, wherein the media session is configured to create a media processor that uses one or more media sources and one or more transforms.
- **82.** (Original) The system of claim 78, wherein the media session is configured to create a media processor that uses one or more media sources and one or more transforms, wherein the media session is configured to set a topology on the media processor.
- **83.** (Original) The system of claim 78, wherein the media session is configured to make determinations as to which time sources are to be used to drive the presentation.
- **84.** (Original) The system of claim 78, wherein the media session is configured to prevent drift between a rate of media sources and a rate of a time source being used in live scenarios.

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85. (Original) The system of claim 78, wherein the media session is configured to receive calls from the media processor to at least start, stop and pause the presentation.

86. (Original) The system of claim 78, wherein the media session is configured to receive calls from the media processor to at least start, stop and pause the presentation, wherein the media session is configured to send events to the media engine associated with calls that the media session receives from the media engine.

87. (Original) The system of claim 78, wherein the media session is configured to reduce glitches associated with a presentation by prerolling media data samples to one or more media sinks.

88. (Original) The system of claim 78, wherein the media session is configured to validate one or more component that handle data of the presentation.

89. (Original) The system of claim 77, wherein the media engine partially resolves said topology by at least determining one or more media sources and one or more media sinks for the presentation.

90.-107. (Canceled)

2. The following is an examiner's statement of reasons for allowance: The amendments to the claims now clearly recite what takes place on the first and second devices and that the creation of the topology is directly linked to the filters that are used. The combination of these features in combination with the rest of the limitations cannot be found in the prior art and no rationale exists to modify prior art in such a manner

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADAM M. QUELER whose telephone number is (571)272-4140. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Adam M Queler/ Primary Examiner, Art Unit 2178